

| Notice of Allowability | Application No. | Applicant(s) | |
|--|------------------------------|-----------------------------------|--|
| | 10/778,020 | TSUCHIYA, HITOSHI | |
| | Examiner | Art Unit | |
| | (Nanov) Thanh Nhan B. Nauvon | 2074 | |
| | (Nancy) Thanh-Nhan P. Nguyen | 2871 | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. | | | |
| 1. This communication is responsive to <u>1/17/2006</u> . | | | |
| 2. The allowed claim(s) is/are <u>1-4</u> . | | | |
| 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) | | | |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. | | | |
| 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. | | | |
| 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. | | | |
| (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached | | | |
| 1) hereto or 2) to Paper No./Mail Date | | | |
| (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date | | | |
| Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). | | | |
| | | | |
| 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. | | | |
| Attachment(s) 1. Notice of References Cited (PTO-892) | 5. □ Notice of Informal P | atent Application (PTO-152) | |
| Notice of Preferences Cited (170-032) Notice of Draftperson's Patent Drawing Review (PTO-948) | 6. ☐ Interview Summary | *** | |
| | Paper No./Mail Dat | e . | |
| Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date <u>1/17/2006</u> | 08), 7. ⊠ Examiner's Amendn | 7. ⊠ Examiner's Amendment/Comment | |
| 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. 🛛 Examiner's Stateme | ent of Reasons for Allowance | |
| or biological Material | 9. | | |
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Since the title of the invention is not descriptive, a new title is required that is clearly indicative of the invention to which the claims are directed.

The title has been changed to: "Transflective LCD with Tilting Direction of the LC Molecules Being Opposite to each other in the Two Transmissive Display Areas."

- 2. This communication is responsive to the Request for Continued Examination (RCE) dated 1/17/2006.
- 3. Claims 1-4 are pending for the examination, and claims 1-4 are allowed.
- 4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ogishima et al U.S Patent Application Publication No. 2002/0149728 discloses a transflective LCD comprising: dot areas, each dot area having a reflective display area and two transmissive display areas, wherein the reflective area sandwiched between the two transmissive display areas; alignment restrictor making the LC molecules in the two transmissive display areas tilt symmetrically about the reflective area, [fig. 33A & 33B].

6. The following is an examiner's statement of reasons for allowance:

Applicant's claimed invention distinguishes over the prior art for the following reasons. The claims are allowable over the prior art of record because none of the references, either alone or in combination, discloses or renders obvious:

Regarding claims 1, 2 & 4: A transflective liquid crystal display device comprising:

- dot areas, each dot area having a reflective display area and at least two transmissive display areas;
- an alignment restrictor making the LC molecules in the two transmissive display areas tilt oppositely to each other, and the LC molecules tilt in the same direction in the reflective display area; wherein the first transmissive display area and second transmissive display area of the at least two transmissive display areas being adjacent to, and sandwiching the reflective display area, the first transmissive display area having a first portion adjacent to a first side of the reflective display area, the second transmissive display area having a second portion adjacent to a second side of the reflective display area opposite to the first side of the reflective display area, and the tilting direction of the LC molecules being opposite to each other in the first and second portions.

Regarding claim 3: A transflective liquid crystal display device comprising:

 dot areas, each dot area having a reflective display area and at least two transmissive display areas; Art Unit: 2871

- in a first transmissive display area of two transmissive display areas in each dot area, the substrate with the adjusting layer has an opening in the electrode on the slope of the adjusting layer, and the other substrate has an opening or a projection in the electrode in a substantially central portion of the first transmissive display area;
- and in a second transmissive display area of the two t transmissive display areas in each dot area, the substrate with the adjusting layer has an opening or a projection in the electrode in a substantially central portion of the second transmissive display area, and the other substrate has an opening or a projection in the electrode in a portion-corresponding to a slope of the adjusting layer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on M-F/9-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(Nancy) Thanh-Nhan P Nguyen
Examiner
Art Unit 2871
-- January 22, 2006 --

Andrew SCHECHTER
PRIMARY EXAMINER